Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) # EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 03 ATEX 2092

(4) Equipment: Measuring transducer, type EXL-IM

(5) Manufacturer: Schischek GmbH

(6) Address: Mühlsteig 45, 90579 Langenzenn, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 03-23117.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014 + A1 + A2 **EN 50020:2002**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

Ex II (1) G D [EEx ia] IIC

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

Braunschweig, July 10, 2003

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 2092

(15) Description of equipment

The measuring transducer, type EXL-IM is used to convert resistive and voltage signals from the hazardous area into the non-hazardous area.

The equipment will be installed outside the hazardous area.
The permissible range of the ambient temperature is -10 °C up to +50 °C.

Electrical data

Supply voltage (terminals 1, 2) ..... U = 24 V AC/DC ±20%, 50...60 Hz
P = 3.6 W
U_m = 60 V

Relay circuit (terminals 3, 4) ..... U = 24 V AC or 24 V DC
I = 3 A
U_m = 60 V

Sensor circuit Sens (terminals 24+, 23-) ..... type of protection Intrinsic Safety EEx ia IIC

Maximum values:

U_o = 7.5 V
I_o = 5 mA
P_o = 10 mW
trapezoidal characteristic

L_i negligibly low
C_i negligibly low

Circuitry **without** the existence of lumped external inductances and capacitances:

	EEx ia		
	IIC	IIB	IIA
L_o	900 mH	1000 mH	1000 mH
C_o	11.1 µF	174 µF	174 µF

Circuitry **with** the existence of lumped external inductances and capacitances:

	EEx ia		
	IIC	IIB	IIA
L_o	10 mH	50 mH	50 mH
C_o	1.2 µF	4.9 µF	4.9 µF

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 2092

Sensor circuit Main ..... type of protection Intrinsic Safety EEx ia IIC
(terminals 25+, 22-)

Maximum values:

U_o = 7.5 V
I_o = 5 mA
P_o = 10 mW
trapezoidal characteristic

L_i negligibly low
C_i negligibly low

Circuitry **without** the existence of lumped external inductances and capacitances:

	EEx ia		
	IIC	IIB	IIA
L_o	900 mH	1000 mH	1000 mH
C_o	11.1 µF	174 µF	174 µF

Circuitry **with** the existence of lumped external inductances and capacitances:

	EEx ia		
	IIC	IIB	IIA
L_o	10 mH	50 mH	50 mH
C_o	1.2 µF	4.9 µF	4.9 µF

The terminals 22 and 23 of the sensor circuits are electrically interconnected.

(16) Test report PTB Ex 03-23117

(17) Special conditions for safe use

none

(18) Essential health and safety requirements

met by compliance with the standards mentioned above

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Johannsmeyer
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PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 24